

Application No.: 10/603,646
Office Action Dated: January 26, 2006
Response to Office Action Dated: March 31, 2006

In the Claims:

1. (Currently Amended) A method for demagnetizing objects between two coils lying on opposite longitudinal sides of a transport path relative to one another, wherein the object is located within the region between the two coils within an alternating field for a staying time of a certain duration, and wherein the coils form a single series oscillation circuit which are supplied in a current controlled manner, and wherein the object is previously treated at at least one pre-treatment station for demagnetizing magnetically hard locations in the object.
2. (Original) A method according to claim 1, wherein the staying time over the duration of the cycle lasts between 20 and 500 periods.
3. (Original) A method according to claim 1, wherein two coils are grouped together into one single common coil, and wherein the alternating field is produced within the coil.
4. (Original) A method according to claim 2, wherein the alternating field of the series oscillation circuit is reduced down from a nominal current to an end current by way of a control or a ramp function which are programmed in the inverter.
5. (Canceled)
6. (Previously Presented) A method according to claim 4, wherein the demagnetization curve is influenced by additional supply of the series oscillation circuit by way of feeding with rectangular impulses by the separate current control.
7. (Original) A method according to claim 4, wherein after completion of the demagnetization procedure, the series oscillation circuit is made voltageless, currentless and chargeless by way of a zero point correction.

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8. (Previously Presented) A method according to claim 4, wherein after completion of the demagnetization procedure, the series oscillation circuit is made voltageless, currentless and chargeless by way of a zero point correction.

9. (Currently Amended) A device for demagnetizing objects with a demagnetization station which comprises two coils which are present and which are arranged on opposites longitudinal sides of a transport belt ~~lying opposite relative to~~ one another, wherein the two coils are coreless and are connected in a single common series oscillation circuit and supplied by way of a current control for producing an alternating field, wherein the series oscillation circuit and the transport belt are operated in a cycled manner so that an object transported on the transport belt remains within an alternating field between the coils of the series oscillation circuit for a certain staying time, and wherein in the transport direction of the transport belt there is present at least one pre-treatment station for demagnetizing magnetically hard locations in the object.

10. (Original) A device according to claim 9, wherein the two coils are grouped together into a single common coil, and wherein the alternating field is produced in the inside of the common coil.

11. (Canceled)

12. (Original) A device according to claim 9, wherein the transport of the objects on the transport belt is effected in a cycled manner.

13. (Currently Amended) A device according to claim 12, wherein the transport of the objects on the transport belt effected in a cycled manner is performed in a start-stop ~~way~~ way.

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14. (Previously Presented) A device according to claim 9, wherein it is used for carrying out the method according to any one of claims 1-4 and 6.